



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

U

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,502	09/12/2000	Hiroki Nakayama	865.4339 DI	1875

5514 7590 12/04/2002

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

THOMPSON, TIMOTHY J

ART UNIT PAPER NUMBER

2873

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/660,502

Applicant(s)

NAKAYAMA, HIROKI

Examiner

Timothy J Thompson

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34, 38-43, 46-49 and 51-55 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 34, 39-43 and 46-49 is/are rejected.
- 7) ☒ Claim(s) 38 and 51-55 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 08/248,979.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 17, 18.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2873

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claims 46 and 47 is withdrawn. See the rejection of claims 46 and 47 below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 40, 41, 42, 46, 47, 49 rejected under 35 U.S.C. 102(b) as being anticipated by Hata (U.S. Patent No. 4,993,814)

Regarding claim 40, Hata discloses in order from an object side to an image side, a first lens unit of negative refractive power located closer to the object side than any lens units of the zoom lens(fig 5, I), the first lens unit consisting of, in order from the object side to the image side, a negative lens element(fig 5, L1), a negative lens element(fig 5, L2) and a positive lens element(fig 5, L3)a second lens unit of positive refractive power(fig 5, II), the second lens unit having two positive lens elements and a negative lens element, wherein the separation between the first lens unit and the

Art Unit: 2873

second lens unit is varied during zooming(fig 5), wherein the movement of the first lens unit during zooming from the wide angle to the telephoto end includes a part which is movement to the object side(fig 5, 1).

Regarding claim 41, Hata discloses the first lens unit has in order from the object two negative lens element of meniscus from convex toward the object side(fig 5, rL1, L2) and a positive lens element of meniscus from convex toward the object side (fig 5, L3).

Regarding claim 42, Hata discloses the second lens unit consisting of, in order from the object side to the image side, a positive lens element(fig 5, r7-r8), a negative lens element(fig 5, r9-r10) and a positive lens element(fig 5, r12-r13).

Regarding claim 46, Hata discloses; a parallel plate provided between the zoom lens and the image pickup element(fig 5, 4); in order from an object side to an image side, a first lens unit of negative refractive power located closer to the object side than any lens units of the zoom lens(fig 5, I), the first lens unit consisting of, in order from the object side to the image side, a negative lens element(fig 5, L1), a negative lens element(fig 5, L2) and a positive lens element(fig 5, L3)a second lens unit of positive refractive power(fig 5, II), the second lens unit having two positive lens elements and a negative lens element, wherein the separation between the first lens unit and the second lens unit is varied during zooming(fig 5), wherein separation between the first lens unit and the second lens unit is varied during zooming (fig 5, 1), an image pickup element provided on an image plane of the zoom lens(col 1, lines 5-10, since this is a zoom lens system used with a camera it inherently includes an image pickup element

Art Unit: 2873

provided on an image plane of the zoom lens and col 6, lines 28-38 which states that the image plane is to the right of the lenses which is inherently where you would place the CCD).

Regarding claim 47, Hata discloses; a parallel plate provided between the zoom lens and the image pickup element(fig 5, 4); in order from an object side to an image side, a first lens unit of negative refractive power located closer to the object side than any lens units of the zoom lens(fig 5, I), a second lens unit of positive refractive power(fig 5, II), the second lens unit having two positive lens elements and a negative lens element, wherein the separation between the first lens unit and the second lens unit is varied during zooming(fig 5), wherein separation between the first lens unit and the second lens unit is varied during zooming (fig 5, 1), an image pickup element provided on an image plane of the zoom lens(col 1, lines 5-10, since this is a zoom lens system used with a camera it inherently includes an image pickup element provided on an image plane of the zoom lens and col 6, lines 28-38 which states that the image plane is to the right of the lenses which is inherently where you would place the CCD).

Regarding claim 49, Hata discloses an image pickup element provided on an image plane of the zoom lens(col 1, lines 5-10, since this is a zoom lens system used with a camera it inherently includes an image pickup element provided on an image plane of the zoom lens and col 6, lines 28-38 which states that the image plane is to the right of the lenses which is inherently where you would place the CCD).

Claim Rejections - 35 USC § 103

Art Unit: 2873

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34, 39 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al.(U.S. Patent No. 6,104,548), in view of Enomoto et al.(U.S. Patent No. 5,724,195).

Regarding claim 34, Nakayama et al. discloses in order from an object side to an image side, in order from an object side to an image side, a first lens unit of negative refractive power(fig 1, I, II; focal length = -10.986, embodiment 6) located closer to the object side than any lens units of the zoom lens(fig 11, I, II), the first lens unit consisting of, in order from the object side to the image side, a positive lens element(fig 11, r1-r2), a negative lens element(fig 11, r3-r4) a negative lens element(fig 11, r5-r6) and a positive lens element(fig 11, r7-r8), a second lens unit of positive refractive power(fig 11, III), the second lens unit having in order from the object side a positive lens elements(fig 11, r10-r11), a negative lens element(fig 11, r12-r13), and a positive lens element(fig 11, r14-r15), wherein the separation between the first lens unit and the second lens unit is varied during zooming(fig 11). (Note; although Nakayama et al. discloses that the lenses, r1 through r8, consist of two lens groups, a lens system with a stop commonly refers to the lenses, on the object side of the stop, as a single lens group having two subsets, as shown by Enomoto et al.(fig 1, 11a, 11b), since the lens system of

Art Unit: 2873

Nakayama et al, shows the exact number of lenses, in the proper order, which zoom, as claimed in claim 34, and the lenses positioned on the image side of the stop are commonly designated as a single lens group as shown by Enomoto, the lenses positioned on the object side of the stop, in the lens system of Nakayama et al., can obviously be referred to as a single lens group), the second lens unit consisting of, in order from the object side to the image side, a positive lens element(fig 11, r9-r10), a negative lens element(fig 11, r11-r12) and a positive lens element(fig 11, r13-r14), wherein the separation between the first lens unit and the second lens unit is varied during zooming(fig 5).

Regarding claim 39 Nakayama et al. discloses the second lens unit has an aspherical surface closet to the object side(emb 6, r10).

Regarding claim 48, Nakayama et al. discloses an image pickup element provided on an image plane of the zoom lens(col 1, lines 7-11, since this is a zoom lens system is used with a camera, it inherently includes an image pickup element provided on an image plane of the zoom lens and col 3, lines 1-3 which states that the image plane is to the right of the lenses which is inherently where you would place the CCD).

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hata (U.S. Patent No. 4,993,814) as applied to claim 40 above, and further in view of Shimizu(U.S. Patent No. 6,236,522).

Regarding claims 43, Hata as detailed in claim 40, does not disclose the second lens unit has an aspherical surface closest to the object side. However, Shimizu

Art Unit: 2873


discloses using an aspherical surface on a lens in a zoom lens unit so as to correct for aspherical aberrations(example 1). It would have been obvious to one skilled in the art at the time of the invention us place an aspherical surface closest to the object side as shown by Shimizu, in the zoom lens unit of Hata, since as shown by Shimizu, aspherical surfaces are commonly used in zoom lens units for correcting aberrations(note; the placement of the aspherical surface in the lens unit can obviously be placed on any of the lenses).

Allowable Subject Matter

Claims 38, 51-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With the important feature being; the exact movement of the stop or the first and second lens groups; or the first lens group moving during focusing; the shapes of the lenses in the first lens group. .

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Thompson whose telephone number is (703) 305-0881. If the examiner can not be reached his supervisor, Georgia Epps, can be reached on (703) 308-4883.


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800